$$[(D, M)\text{-}L]_k\text{-}T$$

wherein:

T is a target-binding moiety specific for a target compound;

k is an integer in the range of from 1 to 20;

L is a cleavable linkage that is cleaved by oxidation;

D is a detection group;

M is a mobility modifier consisting of from 1 to 500 atoms selected from the group consisting of carbon, hydrogen, oxygen, sulfur, nitrogen, phosphorus, and boron;

and wherein, upon cleavage of L an eTag reporter comprising a detection group, D, and a mobility modifier, M, is produced with a distinct charge/mass ratio so that eTag reporters from different electrophoretic probes form distinct peaks upon electrophoretic separation.

24. (Amended) The probe set of claim 22 wherein said cleavable linkage is selected from the group consisting of olefins, thioethers, sulfoxides, and selenium analogs of thioethers or sulfoxides.

25. (Amended) The probe set of claim 24 wherein said cleavable linkage is cleavable by singlet oxygen.

27. (Amended) The probe set of claim 26 wherein said target-binding moiety is a monoclonal antibody or a polyclonal antibody; and wherein k is in the range of from 1 to 3.

30. (Amended) A set of specific binding pairs for detecting the presence or absence of one or more target compounds, the set comprising a plurality of pairs of first reagents and second reagents, the first reagent and second reagent of each pair being specific for the same target compound, the first reagent of each pair being selected from the group defined by the formula:

$$[(D, M)\text{-}L]_k\text{-}T$$

wherein:

T is a target-binding moiety specific for a target compound,

k is an integer in the range of from 1 to 20,

L is a cleavable linkage,

D is a detection group, and

M is a mobility modifier consisting of from 1 to 500 atoms selected from the group consisting of carbon, hydrogen, oxygen, sulfur, nitrogen, phosphorus, and boron,

wherein upon cleavage of L an eTag reporter comprising a detection group, D, and a mobility modifier, M, is produced with a distinct charge/mass ratio so that eTag reporters of different electrophoretic probes form distinct peaks upon electrophoretic separation; and

the second reagent of each pair being capable of generating an active species to cleave the cleavable linkage, the active species being selected from the group consisting of singlet oxygen, hydrogen peroxide, NADH, and hydrogen radicals.

31. (Amended) The set of specific binding pairs of claim 30 wherein said plurality is in the range of from 5 to 100, and wherein M is a mobility modifier consisting of from 1 to 300 atoms selected from the group consisting of carbon, hydrogen, oxygen, phosphorus, nitrogen, sulfur, and boron.

32. (Amended) The set of specific binding pairs of claim 31 wherein said cleavable linkage is selected from the group consisting of olefins, thioethers, sulfoxides, and selenium analogs of thioethers or sulfoxides.

33. (Amended) The set of specific binding pairs of claim 32 wherein said detection group is a fluorophore, a chromophore, or an electrochemical label, and wherein said charge/mass ratio is in the range from -.001 to 0.5.

34. (Amended) The set of specific binding pairs of claim 33 wherein said target-binding moiety is a monoclonal antibody or a polyclonal antibody, and wherein k is in the range of from 1 to 3.

35. (Amended) The set of specific binding pairs according to claims 30, 31, 32, 33, or 34 wherein said second reagent is a monoclonal antibody or a polyclonal antibody, and wherein said active species is selected from the group consisting of singlet oxygen, hydrogen peroxide, NADH, and hydrogen radicals.